

# CS4984

## Computer Crime & Open Source

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# Computer Crime

## *Specific Federal Statutes*

- Computer Fraud & Abuse Act (CFAA)
- Electronic Communications Privacy Act (ECPA)
- Encryption Export Control Act (EECA)
- International Emergency Economic Power Act (IEEPA)
- Economic Espionage Act (EEA)



# Computer Crime

## *Specific Federal Statutes (cont'd)*

- Criminal Trademark statutes
- Criminal Copyright statutes
- Patent Forgery statute
- Identity Theft and Assumption Deterrence Act (ITADA)
- Government Confidential Information Act
- National Defense Information Act (NDIA)



# Computer Crime

## *General Federal Statutes*

- Obscenity and Child Pornography
- Wire Fraud, Mail Fraud
- Securities Fraud
- National Stolen Property Act
- RICO
- Money Laundering statute
- Prohibited Financial Transactions statute
- Conspiracy, Aiding, & Abetting



# Computer Fraud & Abuse Act

- Protected computer = computer used in interstate communication
- Prohibits:
  - Unauthorized disclosure of sensitive national defense, foreign relations, or nuclear technology information obtained by unauthorized access to protected computer.
  - Obtaining information from a protected computer through unauthorized access
  - Unauthorized access to any federal gov't computer
  - Furthering a fraud through unauthorized access to a protected computer



# Computer Fraud & Abuse Act

- Prohibited acts
  - Damaging a protected computer
  - Trafficking in passwords affecting interstate commerce or federal gov't computer
  - Making a threat to damage a protected computer in order to extort money of another item of value.
- USA PATRIOT Act
  - Adds foreign computers that affect U.S. interstate communications
  - Lighter “damage” requirements
  - Extended jail terms



# Electronic Communications Privacy Act

- Expands the Wiretap Act's prohibitions to include interception of electronic communication
- Prohibits access to a facility through which an electronic communication service is provided



# Electronic Communications Privacy Act (cont'd)

- USA PATRIOT Act
  - Included “voicemail” in def’n of electronic communication
  - Gov’t can intercept comm. from computer trespasser with permission of owner of victim computer
  - Easier for gov’t to obtain personal info from computer providers





# Trafficking in Counterfeit Goods & Services

- Prohibits
  - Trafficking in goods or services bearing counterfeit trademarks
  - Must be intentional or knowingly
  - Individual Penalties
    - Up to \$5,000,000 fine; 20 years in prison
  - Non-Individual Penalties (I.e., an organization)
    - Up to \$15,000,000 fine
- Also a crime to traffic in counterfeit labels and computer program documentation and packaging.



# Criminal Copyright Infringement

- Prohibited conduct
  - Willful copyright infringement
  - For purposes of commercial advantage or private financial gain, or value  $\geq$  \$1,000 (within 180 day period)
- Damages
  - \$\$\$ based on number of infringing copies and retail value of those copies (up to \$500,000); and/or
  - Jail (up to 10 years)



# Virginia Statutes

- Virginia Computer Crimes Act
  - Protected Devices:
    - Any electronic, magnetic, optical, hydraulic, or organic device
  - Prohibited Acts:
    - Computer fraud
    - Computer trespass
    - Computer invasion of privacy
    - Theft of computer services
    - Personal trespass by computer
    - Harassment by computer
    - Computer forgery
    - Encryption in a criminal activity



# Software Licensing

- Shrinkwrap
- Click-wrap
- Open Source issues



# Shrinkwrap and Clickwrap Agreements

- Common provisions
  - scope of license/restrictions on use (noncommercial) -- ProCD case
  - limitations on use of data (screen scrapers, e-mail harvesters)
  - anti-reverse engineering clauses -- Bowers case
  - limitations on copying/distributing/linking/framing
  - disclaimers (warranty of fitness/merchantability/etc)
  - anti-disparagement provisions
  - arbitration clauses



# Shrinkwrap and Clickwrap Agreements (cont'd)

- Why use them?
  - extra layer of protection beyond copyright/patent/trade secret
  - protections not available under other theories (reverse engineering; noncopyrightable subject matter; waiver of patent/copyright defenses)
  - can select venue for arbitrations/litigation
  - avoid copyright "first sale" doctrine



# Shrinkwrap and Clickwrap Agreements (cont'd)

- Enforcement issues
  - Validity of assent (must give notice prior to downloading/executing)
    - Specht v. Netscape Communications, 306 F.3d 17 (2d Cir. 2002) (buyer downloaded software without ever looking at license terms: no assent to terms)
  - Recordkeeping/proof problems (terms, dates, procedures, etc)
  - Unconscionability (agreements not to publish/compete/test)



# Shrinkwrap and Clickwrap Agreements (cont'd)

- Are there any limits?
  - "By opening this can of soda, you agree not to reverse-engineer the formula."
  - "By using this software, you agree not to sue us for any reason."
  - "If you return this product to us, you agree not to use any competitor's product."
  - "By opening this book, you agree not to write an unfavorable review of it."
- UCITA (MD and VA only) may affect enforcement





# Copyright Preemption

- Are Shrinkwrap/Clickwrap Agreements Preempted?
- A claim is preempted if:
  - Work is "fixed" in tangible medium (disk, paper, etc)
  - Work is a copyrightable "work of authorship"
  - Rights asserted under claim are equivalent to rights provided by copyright act (reproducing, adapting, distributing, performing, etc).



# Copyright Preemption (cont'd)

- Are shrinkwrap or clickwrap agreements preempted by copyright act?
  - Agreement to not copy: analogous to copyright reproduction right
  - Agreement to not further distribute: analogous to copyright distribution right
  - Agreement to not use uncopyrightable parts of work: analogous to fair use defense
  - Other terms: must look at individually



# Copyright Preemption (cont'd)

- Bowers v. Baystate Technologies, Inc., 320 F.3d 1317 (Fed. Cir. 2003)
  - Shrinkwrap software agreement: "no copying; no reverse engineering allowed"
  - Is agreement preempted? Baystate argued:
    - anti-copying provision was equivalent to reproduction right
    - anti-reverse engineering provision conflicted with fair use defense



# Bowers v. Baystate (cont'd)

- Court said:
  - Contract rights are individual rights; copyrights are against the world
  - Contracts have offer, acceptance, consideration, breach
  - Reverse engineering provision: does not conflict with fair use defense
  - OK to waive defense of fair use in contract
  - DMCA has limited "fair use" reverse engineering provision
- Lesson learned: OK to enforce anti-reverse engineering clause (very broad)



# Open Source Licensing Issues: What a Mess!

- General Public License (GPL) and Free Software Foundation ([www.gnu.org](http://www.gnu.org))
- Risks/Problems with the GPL
- Linux: relies on the GPL
- SCO v. IBM: testing the GPL



# O-STEP – An Alternative to Open Source

- Open Source Threshold Escrow Program
  - An intermediary between proprietary and open source models
- O-STEP Escrow Agreement
  - Escrow software with the Center of Open Source & Government
  - When sales threshold met, source code is released to open source community
    - Sales threshold set by company?
    - What about new versions of software?



# Review for Exam

Any Questions?

